

APPENDIX A

TOOLS AND EQUIPMENT

Hand Tools

aviation snips (M1, M2, M3) rake
band tensioner rasp
brake rivet gun
brooms rollers

bungee cords rubber bands

caulking gun saws (keyhole and hand)

chisels scissors
clamps scraper
combination machine scratch awl
(beader/crimper) screwdrivers

easy edger sealer
end nippers shears
flare staple gun shovel
foam gun staple gun
glove bag thermometer
hammer thickness gauge
hog ring pliers / C-ring pliers tie-down straps

knife and sheath tin snips lagging brush tool pouch

paint brush trowels (pointer and flat)

paint roller water hoses pliers wire brush

Power Tools

band cutting machine

band saw

blow torch

circular saw drills (cordless and electric)

electric combination machine electric roller

electric shears extension cords

foot operated shears (guillotine)

grinders heat gun

HEPA (High Efficiency Particulate Absolute) vacuum

jig saw lock former mitre saw mixers

negative air machine

nibblers notchers pin gun pin welder pneumatic tools

powder actuated tools

pump sprayer safety edge machine sewing machine

slitter stud gun stud welder table saw

Layout Equipment

calculator

carpenter's square

chalk line circumference rule

clamps compass dividers

felt pens level pencils '
protractor
scale ruler
straight edge
tape measure

mitre chart

t-square trammel point

Spray Equipment

airless sprayer

hopper sprayer spray pumps tip cleaners

Access Equipment

aerial manlift bosun chair

ladders

scaffolding scissor lift swing stage

Personal Protective Equipment and Safety Equipment

acid suits
disposable booties
disposable coveralls (whites)
eye wash station
face shields
fall arrest equipment
fire and chemical resistant coveralls
fire extinguisher
first aid kit

gloves
goggles
hard hat
hearing protection
reflective vest
respirator
safety boots
safety glasses
wristlets



APPENDIX B

GLOSSARY

abatement to become less severe or widespread; in this analysis, refers to asbestos

removal, enclosure or encapsulation in order to minimize the health risks

bulkhead any vertical partition separating compartments on a ship

cladding/jacketing covering applied to insulation as a protective or decorative cover

deckhead underside of a ship's deck viewed from below the ceiling

encapsulate applying penetrating sealants or sprays to prevent airborne contaminants

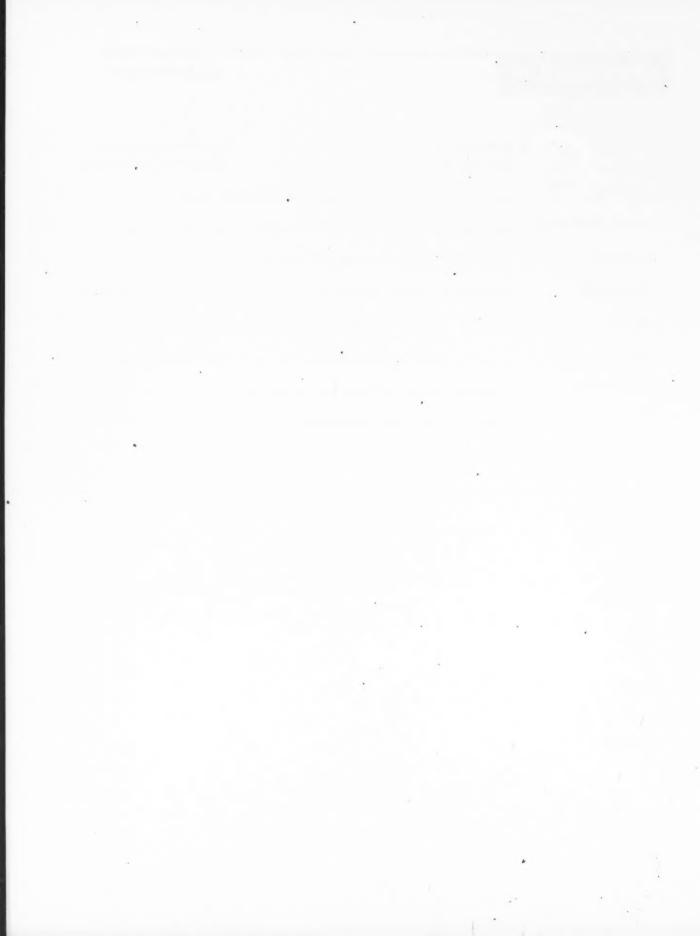
enclose to box in, using such materials as metal or drywall

lags mitred sections of flat insulating material cut to form a specific shape

stud and rail a fastening system for insulation and cladding on tanks

vessel pressurized container; for example, propane tanks, exchangers and

cylinder tanks



APPENDIX C

ACRONYMS

ASJ All service jacket

CAD Computer Assisted Drawing

HEPA High Efficiency Particulate Absolute

MEK methyl ethyl keytone

MSDS Material Safety Data Sheet

OH&S Occupational Health and Safety

PPE Personal Protective Equipment

PVC Poly-vinyl chloride

RFFRK Reinforced Foil Flame Retardant Kraft

TSP tri-sodium phosphate

WHMIS Workplace Hazardous Materials Information System



APPENDIX D

BLOCK AND TASK WEIGHTING

%	<u>NL</u> <u>NS</u> NV 15				ON ND	<u>MB</u> 15		AB 20	<u>BC</u> 14	NT NV	YT	National Average 17%
	Task 1	Mai	ntains	s tools a	ınd eqı	uipme	ent.					
	9			<u>PE NE</u> NV 20			<u>MB SK</u>			NT NV		23%
	Task 2	Org	anizes	s work.		-						
	9/			PE NE NV 25						NT NV		26%
	Task 3	Perf	forms	routine	trade	activi	ties.					
	9/			<u>PE</u> <u>NE</u> NV 55								51%
BLC	ОСК В	IND	USTR	IAL A	PPLICA	ATIO	N					
%	<u>NL</u> <u>NS</u> NV 37			<u>QC</u> 45	<u>ON</u> ND	MB 35		<u>AB</u> 40	<u>BC</u> 30	NT NV	YT NV	National Average
												 -530
	Task 4	Inst	alls in	sulatio	n for pi	ping	and fit	tings				
		<u>NL</u>	NS !	sulation PE NE NV 23	QC (ON M	<u>1B SK</u>	AB	<u>BC</u>			28%
		NL NV	<u>NS</u> 1	PE NE	OC 0 25 1	ON M	<u>4B</u> <u>SK</u> 20 25	AB 25	BC 30	NV	NV	28%

	Task 6		Inst	alls p	orote	ctive	clac	lding									
		%						ON ND									19%
	Task 7		Inst	alls r	emo	vabl	e cov	ers.									
	•	%						ON ND									10%
	Task 8		Insu	lates	for	refra	ctory	y and	cryc	geni	ic ap	plica	tions	i.			
		%						ON ND								ė	8%
	Task 9		Inst	alls ı	ınde	rgroi	und i	insula	ating	syst	ems.						
		%						ON ND									5%
	Task 1	0	Insu	lates	for	soun	dpro	ofing	g for	indu	Istria	l app	olicat	ions			
		%						ON ND							NU NV		6%
	Task 1	1					ne aj I CO	pplica RE)	ation	s.							
		%						ON ND		<u>SK</u> 0	<u>AB</u> 0		NT NV				NCC
LC	OCK C		COM	IME	RCI	AL A	PPL	ICAT	NOIT	J							
6		<u>NS</u>	<u>PE</u> NV	<u>N</u>			<u>ON</u> ND	<u>MB</u> 25	<u>Sk</u>			<u>BC</u> 30	<u>NT</u> NV	YT NV			National Average

	%	<u>NL</u> NV					<u>ON</u> ND								23%
	Task 14	Insu	lates	s med	chan	ical e	quip	men	t.						
	%	<u>ŃL</u> NV					ON ND			<u>AB</u> 20		NT NV			18%
	Task 15	Insta	alls p	orote	ctive	finis	shes.								
	%	<u>NL</u> NV												<u>NU</u> NV	19%
	Task 16	Insu	lates	s for	soun	dpro	ofing	g for	com	mer	cial a	pplic	catio	ns.	•
	%	<u>NL</u> NV					<u>ON</u> ND			<u>AB</u>		NT NV			9%
RI (OCK D	ACRI	EST) S A	RAT	rem	ENT								
DL	JCKD	ASDI	6310	JJ A	LDA	LEIVI	DIA I								
%	NL NS		N	ВС		<u>ON</u>	<u>MB</u>				BC 10	NT NV	YI NV		National Average 10%
	NL NS	<u>PE</u>	<u>N</u>	B C	<u>2C</u> 15	ON ND	MB 7	. 15	5 1						Average
	NL NS NV 6	PE NV	N/ 10	B C	DC 15 asbes	ON ND stos a	MB 7	men MB	t. <u>SK</u>	10 <u>AB</u>	10 BC	NV	NV YT	NU NU	Average
	NL NS NV 6	PE NV Pres	N 10 20 20 20 20 20 20 20 20 20 20 20 20 20	B C	2C 15 asbes <u>NB</u> 28	ON ND stos a	MB 7	15 men MB 40	5 1 t. <u>SK</u> 30	AB 40	10 BC	NV	NV YT	NU NU	Average 10%
	NL NS NV 6 Task 17 % : Task 18	Prep NU Prep NL NV	NS 45	B C For a PE NV s asb	OC 15 asbes NB 28 estos	ON ND	MB 7 abate ON ND aoval	meni MB 40 proc MB	s. SK 30 redu	AB 40 res.	10 BC 42	NV · NT NV	YT NV	NU NV	Average 10%
	NL NS NV 6 Task 17 % : Task 18	Prep NL NV Perf	NS 45	B C For a Fo	NB 28 estos	ON ND Stos a QC 34 S rem OC 33	MB 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	15 ment MB 40 process MB 40	s. SK 30 redu	AB 40 res.	10 BC 42	NV · NT NV	YT NV	NU NV	Average 10%

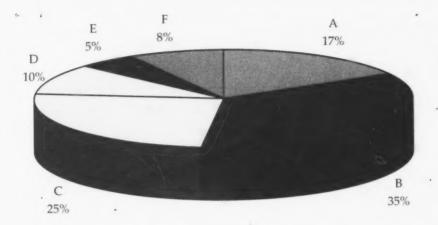
Task 13 Insulates mechanical ducting.

%	NL NV	<u>NS</u> 6	<u>PE</u> NV	<u>NE</u> 5	2			5 <u>SK</u>		<u>BC</u> 6	NT NV	YT NV	NU NV	National Average 5%
	Task 2	0	Prep	ares	for sp	oraying	ζ.							
		%			PE I	NB QC 60 25	ON ND	-				YT I		42%
	Task 2	1	Spra	ys in	sulati	on, sea	alers a	nd co	atings					
		%		<u>NS</u> 70		NB QC 40 75						YT I		58%
BLC	OCK F]	FIRE	STO	PPIN	IG AN	D FIF	REPR	OOFI	NG				
%	NL NV	NS 6	<u>PE</u> NV	<u>NE</u> 5	3 <u>QQ</u>					BC 10	NT NV	YT NV	NU NV	National Average 8%

	%	-					60	-	-			59%
Task 23		Inst	alls f	irepr	oofii	ng.						
							MB 40					41%

APPENDIX E

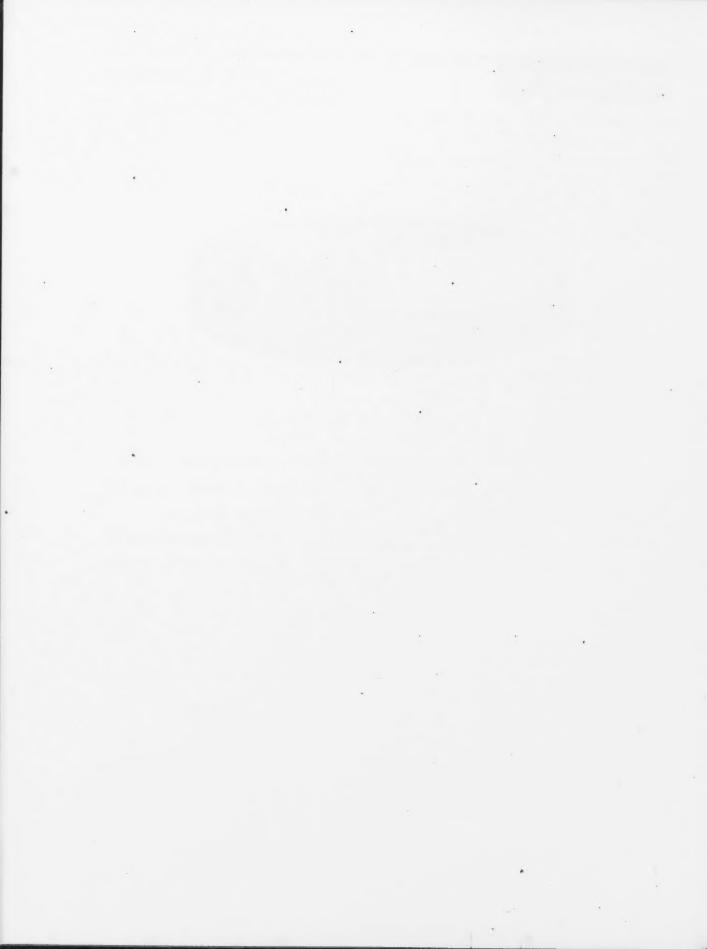
PIE CHART*



TITLES OF BLOCKS

BLOCK A	Occupational Skills	BLOCK D	Asbestos Abatement
BLOCK B	Industrial Application	BLOCK E	Spraying Insulating Materials
BLOCK C	Commercial Application	BLOCK F	Fire Stopping and Fireproofing

^{*} Average percentage of the total number of questions on an interprovincial examination, assigned to assess each block of the analysis, as derived from the collective input from workers within the occupation from all areas of Canada. Interprovincial examinations' typically have from 100 to 150 multiple-choice questions.



APPENDIX F

TASK PROFILE CHART — Insulator (Heat and Frost)

BLOCKS	TASKS		\$	SUB-TASKS	3	
A OCCUPATIONAL SKILLS	Maintains tools and equipment.	1.01 Maintains hand tools.	1.02 Maintains power tools.	1.03 Maintains spray equipment.	1.04 Maintains layout and fabrication tools and equipment.	1.05 Maintains personal protective equipment (PPE) and safety equipment.
	2. Organizes work.	2.01 Performs task scheduling.	2.02 Interprets specifications and drawings.	2.03 Uses documentation.	2.04 Communicates with others.	2.05 Organizes materials.
	3. Performs routine trade activities.	3.01 Performs measurements.	3.02 Uses access equipment.	3.03 Prepares substrate.	3.04 Applies sealants.	3.05 Maintains safe work environment
B INDUSTRIAL APPLICATION	4. Installs insulation for piping and fittings.	4.01 Selects pipe insulation.	4.02 Fabricates insulation for pipe fittings and hangers.	4.03 Cuts pipe insulation.	4.04 Fits pipe insulation.	
	5. Installs insulation for tanks, vessels and equipment.	5.01 Cuts insulation for tanks, vessels and equipment.	5.02 Fits insulation for tanks, vessels and equipment.	5.03 Fastens insulation on tanks, vessels and equipment.		
	6. Installs protective cladding.	6.01 Selects cladding.	6.02 Performs cladding layout.	6.03 Fabricates cladding.	6.04 Assembles cladding components.	
	7. Installs removable covers.	7.01 Lays out removable covers.	7.02 Fabricates removable covers.	7.03 Fits removable covers.		_
	8. Insulates for refractory and cryogenic applications.	8.01 Applies insulation to refractory systems.	8.02 Applies insulation to cryogenic systems.			
	9. Installs underground insulating systems.	9.01 Applies pipe insulation to underground systems.	9.02 Applies pour- in-place insulation to underground systems.			

BLOCKS	TASKS			SUB-TASK	S	Denoveral States of the dis-
	10. Insulates for soundproofing for industrial applications.	10.01 Insulates industrial piping for soundproofing.	10.02 Insulates turbines and equipment for soundproofing.			
*	11. Insulates for marine applications.	11.01 Insulates bulkheads, deckheads and hulls.	11.02 Installs finish material on marine applications.			
	(NOT COMMON CORE)	(NOT COMMON CORE)	(NOT COMMON CORE)			
COMMERCIAL APPLICATION	12. Insulates plumbing systems and mechanical piping.	12.01 Selects insulation for plumbing systems and mechanical piping.	12.02 Cuts insulation for plumbing systems and mechanical piping.	12.03 Fits insulation for plumbing systems and mechanical piping.	12.04 Installs vapour barrier on plumbing systems and mechanical piping.	
	13. Insulates mechanical ducting.	13.01 Selects 'insulation for mechanical ducting.	13.02 Cuts insulation for mechanical ducting.	13.03 Fits insulation for mechanical ducting.	13.04 Installs vapour barrier for mechanical ducting.	
	14. Insulates mechanical equipment.	14.01 Selects insulation for mechanical equipment.	14.02 Cuts insulation for mechanical equipment.	14.03 Fits insulation for mechanical equipment.	14.04 Installs vapour barrier for mechanical equipment.	
	15. Installs protective finishes.	15.01 Selects protective finishes.	15.02 Cuts protective finishes.	15.03 Fits protective finishes.		
	16. Insulates for soundproofing for commercial applications.	16.01 Selects soundproofing materials.	16.02 Insulates piping for soundproofing.	16.03 Insulates plenums for soundproofing.	16.04 Installs acoustic panels to ceilings and walls.	
SBESTOS BATEMENT	17. Prepares for asbestos abatement.	17.01 Retrieves sample of asbestos for testing.	17.02 Determines scope of work.	17.03 Determines required PPE for asbestos abatement.	17.04 Prepares site for removal or containment of asbestos.	17.05 Builds temporary enclosure.
		17.06 Determines disposal methods and requirements.				/
	18. Performs asbestos removal procedures.	18.01 Removes asbestos.	18.02 Disposes of asbestos materials.			

	BLOCKS	TASKS	مريد المعاديرة - العربة - أي المعاولة بي من	Standard of Space of Supplementary	SUB-TASKS
		19. Performs maintenance repair.	19.01 Encapsulates asbestos.	19.02 Encloses asbestos.	
E	SPRAYING INSULATING MATERIALS	20. Prepares for spraying.	20.01 Protects surrounding work area for spraying.	20.02 Prepares material, equipment and substrate for spraying.	
		21. Sprays insulations, sealers and coatings.	21.01 Installs reinforcing material for spraying.	21.02 Applies spray.	
F	FIRE STOPPING AND FIREPROOFING	22. Installs fire stop systems.	22.01 Applies fire, stop materials.	22.02 Covers fire stop materials.	
		23. Installs fireproofing.	23.01 Applies fireproofing to structural components.	23.02 Applies fireproofing to electrical components.	



